

Development of Tourism – Barriers to Shaping and Recommendations for Further Research

Zachowania prośrodowiskowe w hotelach w kontekście zrównoważonego rozwoju turystyki – bariery i rekomendacje dla dalszych badań

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Abstract

The main cognitive objectives of this paper are the following: to present previous results and achievements in the field of research on pro-environmental behaviours in the hotel industry, to identify major barriers to the shaping of such behaviours, and to specify directions of further research on this topic in the context of sustainable tourism development. The dominant research method used in this paper is a systematic analysis of the available literature on the subject, but the authors also use their own knowledge and experience resulting from conducted quality audits. An analysis of the previous publications in this topic allows the authors to identify the major barriers to the shaping of pro-environmental behaviours in hotels in both the objective dimension (concrete actions and problems) and the subjective dimension (all people who should manifest pro-environmental behaviours). The paper discusses various theories and models explaining the process of the occurrence and development of pro-environmental behaviours in hotels. They can constitute a basis for hotel managers to create their own training programmes aimed at the shaping of pro-environmental behaviours.

Key words: hotel, stakeholder, ecological awareness, pro-environmental behaviours, sustainable tourism

Streszczenie

Głównymi celami poznawczymi artykułu są: ukazanie dotychczasowego dorobku dotyczącego badań nad zachowaniami prośrodowiskowymi w branży hotelarskiej, identyfikacja głównych barier kształtowania tego rodzaju zachowań oraz sformułowanie kierunków dalszych kierunków badań nad podjętą problematyką w kontekście zrównoważonego rozwoju turystyki. Główną metodą badawczą była systematyczna analiza literatury, lecz autorzy wykorzystali również wiedzę z własnych doświadczeń wynikających z przeprowadzania audytów jakości. Analiza dotychczas opublikowanych badań pozwoliła na identyfikację głównych barier kształtowania zachowań prośrodowiskowych w hotelach zarówno w układzie przedmiotowym (konkretnych działań i problemów), jak i podmiotowym (wszystkich osób, które powinny przejawiać zachowania prośrodowiskowe). W artykule omówiono różne teorie i modele wyjaśniające, w jaki sposób dochodzi do rozwoju zachowań prośrodowiskowych w hotelach. Na ich podstawie menedżerowie hotelowi będą mogli tworzyć własne programy edukacyjne, których celem będzie kształtowanie zachowań prośrodowiskowych.

Słowa kluczowe: hotel, interesariusze, świadomość ekologiczna, zachowania prośrodowiskowe, zrównoważona turystyka

1. Introduction

For a long time, it has been common knowledge that climate change and other alarming environmental phenomena required integrated preventive actions to be undertaken by local communities, organizations, and governments. The literature on the subject more and more often refers to the need to build a sustainable society and sustainable development policies applicable to various sectors of the economy, including tourism, whose key segment is the hotel sector (Awedyk, Niezgodą, 2018; Borys, 2011; Kowalczyk, 2010; Nowacki et al., 2018; Rothschild, 1999). The sustainable development of tourism is determined by the following four operational directions: minimizing interference with the natural environment, ensuring respect for cultural differences, maximizing the participation of local communities in tourist services, and ensuring higher satisfaction with tourism. According to the World Tourism Organization, the principles that determine such development apply to natural, economic, social, and cultural aspects, among which it is necessary to maintain balance guaranteeing long-term and harmonious development (Kowalczyk, 2010).

The maintenance of this balance depends to a growing extent on pro-environmental behaviours. They are *conscious actions aimed at reducing the negative impact of people on the natural environment. Such behaviours include minimizing the consumption of natural resources as well as the use of harmful and toxic substances, reducing the generation of waste and the consumption of energy* (Kollmuss, Agyeman, 2002). Pro-environmental behaviours always depict the status of people's ecological awareness, i.e. their attitude characterized by responsibility for the state of the natural environment. Such awareness constitutes a part of social awareness concerning the environment. It is an expression of people's knowledge of the environment and their abilities to perceive phenomena taking place in the environment, their mutual relations, causes and effects, as well as their readiness to adopt pro-environmental behaviours (Zuzek, 2017).

For a few years pro-environmental behaviours have been the subject matter of numerous researches conducted, among others, in hotel industry organizations (Baker, et al. 2014; Dief, Font, 2010; Dolnicaret et al., 2017; Goldstein et al., 2007; Han, Hyun, 2018; Hsin-Hui 2014, Mirela, 2014; Reese, et al., 2014; Rezapouraghdam et al., 2018; Tsai, Tsai, 2008; Wei-Che et al., 2018; Yoon, et al., 2016).

Despite many interesting research threads, there is still a serious deficit of knowledge of the efficiency of undertaken activities and barriers to the shaping of pro-environmental behaviours in hotels. Such barriers need to be identified and directions of future research projects need to be indicated, but what is of primary importance is the formulation of recommendations for applications making it possible to de-

velop programmes aimed at shaping such behaviours. This conviction results from a few premises.

Firstly, the hotel sector has become a significant consumer of natural and manufactured resources, and therefore has a significant impact on the world's reserves. Industry specialists predict the worth of the hotel industry to the US economy in 2016 to be \$550 million (Advisera Expert Solution, 2018). In various parts of the world, specialists analyse what can be done to cope with the growing numbers of tourists and there appear suggestions that it is necessary to increase the range of liability for the negative consequences of tourism such as air pollution or excessive consumption of natural resources. In China, for example, the emergence of all-for-one tourism has formed a new tourism trend, which will drive tourists to behave more civilly (Yang et al. 2017).

Secondly, hotels represent various levels of the pro-environmental orientation. Some researches indicate that *there is a weak green organizational climate, which implies lack of organizational emphasis on green practices* (Zientara, Zamojska, 2018). Also, standardized environmental management systems are not used on a large scale in the hotel industry (Bonilla et al., 2011; Mirela, 2014).

Thirdly, the opinion that it is necessary to prevent the destruction of natural environment is becoming increasingly popular. It is critical for the sustainability of the industry to understand the psychological mechanisms underpinning tourists' voluntary adoption of behaviours that minimize harm to environments and communities that support tourism (Landon et al., 2018). It is claimed that not only hotels have to focus on shaping pro-environmental behaviours but also tourism destination providers have to *provide pro-environmental activities to enhance tourists' environmental attitude and general environmentally responsible behavior* (Tsung Hung, Fen-Hauh, 2015).

Therefore, the understanding of the mechanisms of and barriers to such behaviours is so important. Some of them have already been partly identified. On the one hand, it has been shown that hotel owners and managers may express the conviction that ecological practices are not worth getting involved in. On the other hand, however, there is more and more evidence that stakeholders' positive attitude towards the natural environment does not necessarily translate into relevant practices, for example, purchasing truly sustainable products (Line, Hanks, 2016). Other barriers in both the objective dimension (particular actions and problems) and the subjective dimension (all people who should manifest pro-environmental behaviours) obviously require a more thorough diagnosis.

2. Research methodology

The paper is based on an analysis of the literature on the subject included in the database called Academic

Search Complete. The research process was divided into stages. The first stage comprised an analysis of the content of source materials, i.e. 151 papers published in the years 1971-2018 and dominated by the following two key words, hotel and behaviour. In consequence of a detailed analysis of the available literature, a number of research areas were identified on the basis of key words provided by authors. This allowed the authors to distinguish about a dozen issues related to behaviour, for example the personnel's behaviour towards guests or customers, innovative behaviour, the behaviour of managers and owners, pro-environmental behaviour, citizenships behaviour, unethical behaviour, online behaviour, CSR behaviour, or opportunistic behaviour. The objective of this stage was to analyse all behaviours with respect to content which could at least indirectly be related to the subject of pro-environmental behaviour. The second stage of the research comprised an analysis of 60 papers on pro-environmental behaviours in hotels. On the basis of the comprehensive analysis, the authors first reviewed the collected papers, rejecting those of little academic value, and subsequently conducted a selection process aimed at collecting publications that were the closest to the research problem under investigation.

At the third stage of the research, the authors classified and categorized the selected papers. They arranged all issues, assigning particular content to the adopted list of research topics. Next, they tried to compare the obtained and described research results which concerned the specific features of pro-environmental behaviours.

The main objectives of this paper are the following:

1. to present previous results and achievements in the field of research on pro-environmental behaviours in the hotel industry,
2. to identify the main barriers to the shaping of pro-environmental behaviours,
3. to indicate directions of further research on this topic.

3. Research on pro-environmental behaviours in hotel establishments

A very synthetic review of the state of research on pro-environmental behaviours in the hotel industry aimed at achieving the first diagnostic objective of this paper will cover seven research topics identified as the most important, namely:

- the influence of consumer environmental ethics on consumer behaviours in hotels,
- the execution of ecological programmes,
- pro-environmental behaviours connected with the use of hotels' resources,
- relationships among strategies, pro-environmental behaviours, and citizenship behaviours,
- relationships between the concept of sustainable development and the process of hotel certification,

- the influence of social media on the activation (implementation) of pro-environmental norms,
- the identification of factors influencing pro-environmental behaviours of hotel managers.

3.1. The impact of consumer environmental ethics on consumer behaviours in hotels

One paper published in 2008 showed that *consumer behavior can be affected when the three components that make up an attitude, namely cognitive (belief), affective (feeling) and behavior (reaction), are perfectly compatible. Since hotels are given a special characterization due to their emphasis on luxurious service, there are less partially positive correlative relationships between environmental ethics (NEP) and consumer green hotel consumption behaviors* (Tsai, Tsai, 2008).

Tilikidou, Delistavrou and Sapountzis (2014) demonstrated that potential travellers seemed to be more inclined to declare their willingness to use services offered by an ecologically oriented hotel than to make a real effort to do it. They observed a frequently occurring discrepancy between consumers' intentions and factual behaviours. They also found that travellers were willing to boycott hotels where unethical behaviours were identified. However, also in this case, the character of such willingness was declarative rather than factual. The most effective method of encouraging customers to stay in an ecologically oriented hotel was to appeal to their emotions.

3.2. The execution of ecological programmes

In their researches, Line and Hanks (2016) observed that some representatives of the hotel industry expressed concern that guests interested in luxurious services would not want to use hotels taking care of the environment. Various researchers showed that the execution of environmental programmes in hotels was difficult because customers sometimes perceived them as pursuit of cost reduction. The execution of such programmes entails certain inconveniences and a partial loss of what guest perceive as luxury. Furthermore, the research conducted by Baker et al. (2014) indicates that guests who declare that environmental programmes are important do not necessarily prefer and choose hotels offering such programmes. Also, such customers manifest a greater responsibility for the environment at home than in a hotel. The research focused on what could increase customers' willingness to participate in environmental programmes. On the one hand, guests may feel satisfaction with participation in such programmes, but on the other hand, they may have doubts about them, suspecting that services offered in such hotels represent a lower quality (Hsin-Hui, 2014). However, so far such perception of pro-environmental practices in hotels has been documented only in the case of guests using hotels with the highest categories whose services are positioned in the

luxury segment. Analogous researches have not been conducted with respect to the other segments of the hotel market, i.e. low- or middle-standard establishments.

3.3. Pro-environmental behaviours connected with the use of hotels' resources

Some researches showed that standards (Noah et al., 2007), and in particular so-called provincial norms, i.e. ones adjusted to individuals' direct situations, were very important for guests' pro-environmental behaviours. It was shown, among other things, that guests in two hotels used many fewer towels if provincial norms were used instead of typical environmental communications (Reese et al., 2014). The results of an experiment conducted in a four-star hotel in Slovenia demonstrated that appeals to pro-ecological values were hardly effective as there was no observable reduction in the use of hotel towels or energy. It was suggested that a strategy based on references to hedonistic convictions could be more effective (Dolnicar et al., 2017). At present researchers use various experiments to study changes in pro-environmental behaviours. For example, in one of the researches, the participants received exaggerated feedback to intensify the negative consequences of water consumption. The results showed that the immersive virtual reality game caused significant changes in cognition and behaviour intention (Using Exaggerated Feedback in a Virtual Reality Environment to Enhance Behavior Intention of Water-Conservation (Wei-Che, 2018). The study covered the influence of such elements as biospheric values, concern for the environment, readiness for sacrifices for the environment, personal norms and descriptive social norms which are effective in foreseeing hotel guests' decisions concerning water saving and in recommending the same behaviours to other people. Findings revealed that customer characteristics played an essential role in generating pro-environmental intentions. Results demonstrated the mediating role of willingness to sacrifice for the environment and personal norm (Goldstein et al., 2007; Han, Hyun, 2018; Reese et al. 2018).

3.4. Relationships among strategies, pro-environmental behaviours, and citizenship behaviours

A few researches showed that the use of an environmental management strategy had a positive impact on trust and organizational commitment, which is important for the development of citizenship behaviour (Yoon et al., 2016). Other studies examined relations between pro-environmental citizenship behaviours and workplace spirituality.

Workplace spirituality is a framework of organizational values evidenced in the culture that promotes employees' experience of transcendence through the process, facilitating their sense of being connected to others in a way that provides feeling of complete-

ness and joy (Giacolone et al., 2003, p.13). Rezapouraghdam et al. (2018) and Yoon et al., (2016) demonstrated the positive character of relations between pro-environmental behaviours and workplace spirituality.

3.5. Relationships between the concept of sustainable development and the process of hotel certification

Some publications also drew attention to the necessity of applying the concept of sustainable development in hotels as an exemplification of the idea of sustainable development of tourism. Their authors concluded that the relationship between tourism and the environment was especially important because these two elements were closely connected and either of them was characterized by complexity and variability. Hence what is important is harmony, cooperation among hoteliers, tourists and tour operators, which in fact constitutes the essence of the concept of sustainable tourism concerning all entities involved in the tourism development process and applicable at the levels of tourists and inhabitants of reception regions, service providers (hotels, accommodation providers, travel offices, carriers), as well as tourist regions. The conviction was expressed that the ISO 14001 certification process and ecological markings for hotel services constituted milestones in promoting pro-environmental behaviours connected with sustainable development (Mirela, Tomescu, 2014).

3.6. The influence of social media on the activation (implementation) of pro-environmental norms

Researchers examined also the impact of social media on activating pro-environmental norms. The results showed that pro-environmental knowledge and awareness were found to have a strong role in activating pro-environmental norms, creating a pro-environment online community, and increasing tourists' level of engagement in pro-environmental social media activity (Han et al., 2018).

3.7. The identification of factors influencing pro-environmental behaviours of hotel managers

The objective of the research conducted in Egypt by Dief and Font (2010) was to identify factors determining the use of pro-ecological practices by managers.

It was found that organisational contextual variables, and in particular targeting Western tourists, being affiliated to an international hotel chain and the marketers' own demographics, including age, academic subject studied and gender, were the best predictors of more proactive green marketing. Personal environmental values did not explain the pro-environmental behaviour of marketers, and the organisational environmental values that had explained part of their ethical behaviour had resulted

*from voluntarism rather than utilitarian or conform-
ance-based values.*

4. Barriers to the shaping of pro-environmental behaviours in the objective dimension

The identification of barriers to the effective shaping of pro-environmental behaviours will be conducted in the objective dimension. It is of key importance for generating positive changes in both ecological awareness and the practice of pro-ecological behaviours. This paper identifies the following eight major types of barriers to the shaping of such behaviours:

- barriers inherent in cognitive limitations,
- diagnostic barriers connected with the identification of factors influencing pro-environmental behaviours and the assessment of the strength of such influence,
- barriers resulting from the specific character of the hotel industry,
- barriers resulting from the rather limited scope of the application of environmental management systems in hotels,
- barriers related to the limited reliability of declarations concerning CSR practices,
- barriers inherent in motives for the shaping of pro-environmental behaviours, particularly in the light of hotel guests' experiences,
- barriers resulting from the conviction that positive changes in ecological awareness translate automatically into factual purchases of *sustainable hotel products*,
- barriers resulting from the insufficient effectiveness of human resources management methods.

4.1. Barriers inherent in cognitive limitations

Barriers of this type may concern all stakeholders and are connected with the attractiveness of particular ideas and the psychological tendencies to reject what is bad but may happen in the future. Such a mechanism is also observable in pro-environmental behaviours related to climate change. This group comprises three major limitations that have already been identified.

Firstly, for many people, the exploitation of resources is something abstract. This abstraction leads to cognitive complexity which often prevents people from realizing the factual scope of resource consumption. Secondly, certain elements of environmental degradation (e.g. water shortages) are difficult to observe for individual customers, although facts prove intensifying environmental degradation and growing demand for resources. For example, the quantity of water used in tourism is gradually becoming equal to that consumed by the heavy industries, which results from the necessity to meet the needs of individual tourists and to maintain numerous water consuming facilities such as swimming pools or water parks. This fragmentary character of observations causes environmental degradation to be

underestimated, which reduces people's motivation to take care of the natural environment. Thirdly, for particular customers, their daily consumption of water or energy is imperceptible. The isolation of contemporary people from the environment results in their numerous problems with perceiving the negative consequences of the excessive exploitation of natural resources and inability to assess the impact of their personal behaviours and habits on such resources. These problems accompany the process of shaping pro-environmental behaviours also in hotels (Wei-Che et al., 2018).

4.2. Diagnostic barriers connected with the identification of factors influencing pro-environmental behaviours

If the objective is the shaping of pro-environmental behaviours, it becomes necessary to determine which factors and to what degree influence such behaviours. And this causes a problem. Despite many models describing behaviours, researchers are still unable to determine unambiguously to what extent endogenous and exogenous factors exert impact on the behaviour of hotel guests (Han, Hyun, 2018; Juvan and Dolnicar, 2017; Zientara and Zamojska, 2018). The majority of the models are based on previous marketing research (Dief, Font, 2010) or sociological and psychological theories (Goldstein et al., 2007; Scheibehenne, Jamil and Wagenmakers, 2016). If an analysis covers relations among two or three factors, the following questions appear: In what environment was a particular survey conducted? What was the psychic state of people participating in the survey? What was the influence of other factors on the factors constituting the subject matter of the survey? It is rather difficult to draw unambiguous conclusions from the researches conducted so far, but by no means does it mean that they are worthless. Just the opposite; hotel managers can use them to develop their own research tools taking into consideration the unique character of a given hotel, as well as location or cultural differences.

4.3. Barriers resulting from the specific character of the hotel industry

The motives of hotel guests are very diverse; besides obvious motives related to tourism or business there may be ones concerning entertainment. Some guests treat hotels as places of entertainment or stopovers on a way to some final destination. There is also a small group of guests whose stay in a hotel is longer than usual. Consequently, there are differences in behaviours between businesspeople staying in a hotel on a permanent basis and lovers staying for a weekend only. A short stay in a hotel and detachment from everyday home duties and workplace discipline do not cause people to worry about the environment; just the opposite, they focus on consuming more than usual, exploiting excessively available resources (Wontorczyk, 2016).

4.4. *Barriers resulting from the limited scope of the application of environmental management systems*

The current level of environmental management used in hotels has a very limited impact on the development of pro-environmental behaviours. Such a conclusion can be drawn from researches conducted in hotels on the functioning of standardized management systems based on the ISO 14001 standards and the EMAS system (Bonilla et al., 2011; Mirela, 2014).

Although some hotel industry representatives indicate a higher level of satisfaction in guests using the services of hotels with an implemented system based on the ISO 14001 standards (Nearly Zero Energy Hotel, 2018), it is difficult to establish unequivocally to what extent a general level of customer satisfaction is influenced, respectively, by the level of management, the quality of infrastructure, and environmental management systems.

4.5. *Barriers related to the limited reliability of declarations concerning CSR practices*

If pro-environmental behaviours are analysed from the perspective of practices followed by hotels themselves, the basic question arises about the reliability of certification processes and declared CSR practices. Researches conducted in the USA showed that 80% of the surveyed hotels were involved in charitable activities regarded as an element of CSR, 60% of them declared having a diversity management policy, and 40% referred to corporate social responsibility in the visions or missions of their development strategies. Very few hotels referred to the principles of a balanced approach to CSR. Reporting documents did not include such CSR elements as environmental protection or values (Holcomb et al., 2007). Holcomb and Smith (2017) demonstrated in their researches that hotel managers had a positive opinion on CSR. However, similar researches were not conducted in other groups of stakeholders, for example employees.

4.6. *Motives for the shaping of pro-environmental behaviours and hotel guests' experiences*

The shaping of pro-environmental behaviours resembles the process of fulfilling customers' needs and expectations, i.e. achieving the required quality of hotel services. An assessment of such behaviours may be influenced indirectly by guests' expectations. The higher the expectations related to pro-environmental behaviours manifested by employees and managers, the lower their level of satisfaction (Littlejohn et al., 2017).

4.7. *The conviction that positive changes in ecological awareness translate automatically into factual purchases of 'sustainable hotel products'*

Although some research results indicate that various educational programmes, particularly those targeted

at young people, may foster pro-environmental behaviours (Andrew and Coburn, 2018) and the idea of sustainable development is beneficial for people with a supragocentric value system, in practice there is more and more evidence that environmental awareness does not have to translate into factual purchases of *sustainable products* (Line and Hanks, 2016).

4.7. *The insufficient effectiveness of human resources management methods*

Researches conducted so far have also emphasized the role of culture, commitment, and green human resource practices (training, empowerment and rewarding for pro-environmental behaviours) in fostering employees' green recovery performance (Luu, 2018). It is obvious that training, empowerment and other HR methods may support both environmental awareness and environmental behaviours. However, the question arises about their effectiveness and factual impact on changes in employees' behaviours. So far such researches have not been conducted in the hotel industry, which results, among other things, from a considerable share of seasonal workers employed in hotels.

Partial answers to the above question can be provided by researches concerning Behavioural Modelling Training. Nevertheless, the results of some researches did not prove unequivocally that this type of training was more effective than others (Mayer et al., 1987). Thus, such training can provide information on the required models of pro-environmental behaviours, but it cannot guarantee that employees, particularly those with an egocentric value system, will factually manifest such behaviours.

5. **Barriers to the shaping and maintenance of pro-environmental behaviours in the subjective dimension**

In this part of the paper, barriers to the effective shaping of pro-environmental behaviours will be identified in the subjective dimension. The authors have identified four barriers to the shaping of this type of behaviours which are characteristic of the major (but not all) stakeholders, namely barriers occurring in hotel guests, hotel owners, hotel managers, and hotel employees.

5.1. *Hotel guests*

On the basis of conducted researches, it can be concluded that the most important barriers to pro-environmental behaviours on the part of hotel guests include infrastructural limitations, the temporary character of staying in a hotel and its leisure motive, bad habits acquired in another environment, and bad examples given by others, for example hotel employees. Miller et al. (2015) demonstrated a considerable role of infrastructure and habits as barriers to pro-environmental behaviours. On the other hand, Baker

et al. (2014) noticed that customers manifest greater responsibility for the natural environment while staying at home than during tourist trips and hotel stays. This may be the result of the *nimby effect* and its variant – *the biybtim effect* (better in your backyard than in mine), both of which have been described in the literature on the subject. People oppose behaviours perceived as negative in *their own backyard*, but if the same behaviours take place outside their home, they are more tolerant of them (Wontorczyk, 2016).

5.2. Owners

One of the more important barriers to pro-environmental behaviours in hotels can be intensifying competition leading sometimes to owners' pathological behaviours and adopting a short-term perspective with respect to conducted business activities (Kingaby, Caterer, 2011). Among the major barriers to propagating and strengthening pro-environmental behaviours, the literature indicates also people's limited knowledge of benefits resulting from taking care of the environment, including the conviction that pro-environmental initiatives have to be unprofitable. But the results of researches on pro-environmental behaviours do not provide sufficient grounds for such an opinion and a lack of profit may be true in a short-term (temporary) perspective only. In a long-term perspective and with a broader understanding of benefits resulting from pro-environmental behaviours, the category of *profitability* becomes more and more crystallized (Choi et al., 2009; Baker et al., 2014).

There are two reasons for hotel owners' lack of knowledge of benefits resulting from care of the environment. One reason is that for some hotel owners, care of natural resources is a category that is abstract or not worthy of interest, and possible daily savings on water or energy consumption are so small that, in their opinions, they cannot translate into significant reductions of financial costs. The other reason is a rather limited use of systems monitoring environmental processes as a cost management method in hotels. Consequently, there is a lack of evidence that ecological education or pro-environmental behaviours can bring about positive measurable results (Wei-Che et al., 2018).

5.3. Managers

In the case of hotel managers, the primary problem is pressure on achieving short-term objectives. This results in managers' focusing exclusively on financial objectives while other goals, including environmental ones, are not established at all or are not pursued (Deming, 2012). A short-term perspective is often combined with a faulty remuneration system. Firstly, a lack of environmental objectives is connected with a lack of a reward for the achievement of objectives. Secondly, possible rewards for environmental achievements are reaped exclusively by

managers, which leads to conflicts between managers and employees. Furthermore, not all managers have the skill of influencing other people, motivating them or shaping their behaviours. Various researches conducted in hotels show that no significant relationship was found between supervisors' transformational leadership dimensions and employees' performance (Brown, Arendt, 2011).

The last identified barrier is managers' limited knowledge of environmental management systems and lack of motivation to maintain and improve such systems. Consequently, the number of environmental management systems used in the hotel industry is insufficient (in Poland, for example, it is only large hotel networks such as Ibis or Novotel that hold ISO 14001 certificates). Additionally, wanting to obtain a better offer, managers too frequently change certification systems (Bonilla et al., 2011; Puciato, Goranczewski, 2011).

5.4. Employees

A high level of personnel turnover and a high share of seasonal workers in the hotel industry cause a sense of temporariness in some of them. Such employees do not perceive their work in a hotel as an important part of their professional career, which does not favour pursuing long-term objectives such as environmental ones. The temporary character of seasonal employment causes also difficulties with managing human resources in the strategic perspective; consequently, there are no effective methods of modelling pro-environmental behaviours (Hsiang-Fei et al., 2014).

Commonly occurring in hotels, standardization covers as a rule only such areas as the scope and standard of provided services, requirements applicable to the personnel, or the functional features of a hotel facility. With the exception of hotels which have implemented standardized management systems based on the ISO 14001 standard, standardization usually does not cover environmental management processes. Furthermore, the research conducted by Hsiang-Fei et al. (2014) indicates that although work standardization as an element of the 5S method plays an important role in increasing employees' responsibility for pro-environmental behaviours, it sometimes exerts a negative influence on employees' innovation with respect to solving environmental problems.

Also, the organizational and social factors characteristic of the hotel industry (e.g. a large scope of control, functional dependency, assessments causing competition among employees) contribute to the development of counter-productive behaviours, including behaviours detrimental to the environment. They are fostered by personality factors such as feeling guilt, a lower sense of one's own value, aggression, narcissism, neuroticism, tendency to compromise, physical attractiveness, no job satisfaction, and injustice (Bugdol, 2018).

6. Possibilities of using existing models and theories in research on pro-environmental behaviours

The review of the specialist literature conducted above shows that researchers examining the mechanisms of pro-environmental behaviours can make use of the following (Wong et al., 2018):

- linear models,
- the models of pro-ecological behaviours proposed by Fietkau and Kessel, the theory of reasoned action, the theory of planned behaviour, the theory of planned behaviour and environmental literacy,
- the model developed by Kollmuss and Agyeman, the transtheoretical model, the norm activation model, the self-determination theory.

Each of these theories can be useful in planning and carrying out research projects, but there are also certain limitations. Therefore, various researches attempt to combine elements of particular theories (Zhang et al., 2017).

Linear models are based on the assumption that increased ecological knowledge and awareness cause changes in pro-environmental behaviours. Such models are used in developing training programmes for employees and educational programmes for customers. In practice, however, when survey participants only declare to possess ecological awareness, its positive impact on changes towards pro-environmental behaviours does not always take place (Wong et al., 2018). For such people, the natural environment does not have to have a high place in their hierarchies of values (Ashley, 2000), although recently, under the influence of more effective information on hazards such as smog, there have been considerable changes in this respect.

The model of pro-ecological behaviours proposed by Fietkau and Kessel (1981) assumes that such behaviours are influenced by attitudes and values, possibilities of undertaking ecological activities, motivational behaviours, perceptions of and opinions on ecological behaviours, and knowledge. Possibilities of pro-ecological activities depend on economic, exogenous, and infrastructural factors. This model may be useful in developing training programmes and motivational systems. But it requires a holistic programme aimed at developing pro-environmental behaviours. It contains a large number of elements and its effectiveness depends on their importance and interaction among organizational subsystems.

The Theory of Reasoned Action (ToRA or TRA) aimed to explain relations between attitudes and behaviours in people's actions. It was used mainly to foresee the individual's behaviour on the basis of their previous attitudes and actions. It assumed that the individual's decision to behave in a particular way was based on the outcomes expected of the individual in consequence of the behaviour (Ajzen, Fishbein, 1980). However, the theory was fraught

with weaknesses because it did not contain the perceived behavioural control component; therefore, Ajzen put forward the theory of planned behaviour. According to the theory, there are three predictors of human behaviour (Ajzen, 1991): (1) an attitude towards a behaviour, i.e. a degree to which an individual has a positive or negative opinion of a particular behaviour, (2) subjective standards being social expectations of a given individual or perceived pressure on performing a given behaviour, and (3) perceived control of a behaviour, i.e. competence in performing a behaviour perceived by an individual on the basis of previous experiences or predicted obstacles. This theory is criticized for focusing exclusively on rational thinking, to the exclusion of unconscious influence on behaviour and the role of emotions besides affective effects. It is believed that the static explanatory character of the TPB does not help to understand the proven influence of behaviours on learning in future behaviours (Sniehotta, et al., 2014). The Theory of Planned Behaviour is not quite relevant for environmental issues and therefore some researches take advantage of its modified version – The Theory of Planned Behaviour & Environmental Literacy (Wong, et al., 2018). This theory assumes that knowledge exerts influence on behavioural and normative beliefs and convictions as well as a sense of control. Dispositions (here: attitudes, subjective standards) are connected with conservative intentions and, similarly to competencies, exert influence on pro-environmental behaviours (Wong et al., 2018).

The model developed by Kollmuss & Agyeman (2002) identifies many factors which shape pro-environmental behaviours positively or negatively. It can provide data on which demographic, external (e.g. institutional, economic, social, or cultural) as well as internal (e.g. motivation, pro-ecological knowledge, awareness, values, attitudes, emotions, a sense of control, duties, or priorities) factors have impact on pro-environmental behaviours. This model provides comprehensive knowledge on internal and external factors influencing such behaviours. The problem connected with the use of this model is that it fails to take into consideration the role of the scientist in establishing the criteria of pro-environmental behaviours which subsequently become a basis for the assessment of educational success.

The transtheoretical model (TTM) was originally developed to be used in behaviours connected with giving up smoking (Prochaska, DiClemente, 1982). Its authors focused on five psychosocial levels: situational, cognitive, interpersonal, systems, and intrapersonal. They recognized that other domains, such as biological, could play important roles in the development of problem behaviours (Prochaska, et al., 1992). The model focuses on the process of making decisions by an individual and on intended changes. It is based on the assumption that people do not change their behaviours quickly and decidedly.

Behaviour change takes place on a continuous basis, within a cyclical process. The model describes the stages through which an individual has to go when deciding to change their behaviour (pre-contemplation, contemplation, preparation, action, and maintenance). Among other things, the model is criticized for its failure to contribute to the knowledge of the nature, etiology, and development of addictive behaviours (Prochaska, et al., 1992).

One of the models which turned out to be successful in predicting participation in behaviours that are altruistic and friendly for the environment is the Norm Activation Model (NAM), which assumes that performing or refraining from the performance of particular actions results from a sense of moral obligation (Schwartz, 1977). The NAM comprises three types of variables used to predict pro-social behaviours: (1) personal norms – referred to as feeling a moral obligation to perform or refrain from performing particular actions, (2) consequence awareness – the awareness of the negative consequences of improper behaviours for others, (3) responsibility attribution – understood as a sense of responsibility for the negative consequences of failing to act in a pro-social manner (De Groot, Steg, 2009). It is beyond any doubt that social standards may have influence on behaviours in the hotel industry (Reese et al., 2014). However, according to this theory, *the activation of standards is not a sufficient condition for pro-social behaviours. Activated standards may be neutralized because either a particular individual denies the consequences of their actions for others or they refuse to assume responsibility for undertaking actions* (Turaga, et al., 2010, p. 212).

The Self Determination Theory (SDT) can also be used to strengthen motivation for manifesting pro-environmental behaviours (Darner, 2009). According to the SDT, individual motivation depends, among other things, on the perception of autonomy, competence (e.g. optimal challenges and performance feedback) and relatedness (e.g. peer acceptance, parental involvement) (Deci, et al., 1991). Although it is one of the most frequently cited theories of human motivation and function, its critics question the practical usefulness of its three needs, i.e. autonomy, competence, and relatedness (Cerasoli, et al., 2016).

With respect to pro-environmental behaviours there are many other possibilities of performing researches and using them as a basis for developing programmes aimed at shaping such behaviours. It is possible to use an approach based on the theory of relational contracts consisting in the examination of pursued objectives by particular entities. Such objectives may be either intangible or tangible, but they do not have to be integrated and known to stakeholders. A lack of integrity of individual objectives as well as environmental and strategic qualities always leads to dysfunctions in management and causes dif-

ficulties with the shaping of pro-environmental behaviours.

Hotels are specific organizations. Guests are direct observers of provided services because they are inside the organization that provides services. Their major objectives are relaxation and entertainment, while managers' objectives are profits and also social results (e.g. higher customer satisfaction). Employees' objectives are not always clearly specified; besides superior objectives, they may have particular ones and their lifetime goals may include acquiring experience (as an element of competence) and tangible goods. However, conflicts occur in the case of environmental objectives. Managers' objectives consist in eliminating the negative impact of environmental aspects (this objective is often combined with remuneration); employees participate in pursuing such objectives, but do not receive additional remuneration for this, while customers may not be interested in environmental objectives because sometimes it is not consistent with the objective of their hotel stay.

The theory of relational contracts can be supplemented with the theory of conflicts. It should be noted that in the case of hotels there may occur conflicts between the rules of hygiene and the rules of environmental care, between financial objectives and the necessity of complying with environmental and sanitary procedures (e.g. the necessity of changing bedding regularly and its impact on the environment or costs incurred in connection with environmental care). Do such conflicts and a lack of integrity of objectives exert influence on pro-environmental attitudes and behaviours?

Another interesting proposal is an attempt to use the theory of organizational behaviours. The first researches on sports or citizenship behaviours have already been conducted (Dagenais-Cooper, Paillé, 2012; Munap, et al., 2013). They demonstrated that extraversion, tendency to compromise, conscientiousness, and openness had a positive and strong connection with citizenship behaviours. Therefore, employees who are extravert, conciliatory, conscientious and open to new experiences tend to manifest citizenship behaviours. But it should be remembered that citizenship behaviours may sometimes be counterproductive. Thus, the question arises whether citizenship behaviours favour pro-environmental behaviours.

7. Proposed directions of further research

Identified and discussed in the previous chapters, the subjective and objective barriers to the shaping of pro-environmental behaviours require further in-depth studies and empirical researches. In this context, the key objective is to identify the primary and factual sources of such barriers. In the opinion of the authors of this paper, future studies should focus on

the following six research problems regarded by them as the most important:

- the maturity of environmental management systems,
- the holistic character and authenticity of CSR activities with a special emphasis put on the pro-environmental perspective,
- the role of pro-environmental activities in assessing the quality of hotel services,
- problems related to cultural and social differences determining customers' ecological orientation and their readiness to pay for hotels' pro-environmental behaviours,
- the effectiveness of human resources management methods in the context of shaping pro-environmental behaviours,
- the environmental and economic efficiency of such behaviours.

7.1. The maturity of environmental management systems

If it can be assumed that managers sometimes adjust certification to the requirements of the market (Bonilla et al., 2011), the following questions arise: To what extent do hotels really examine their environmental efficiency? How are improvement actions initiated? What opinions are used? How do managers cope with process analysis?

7.2. The holistic character and authenticity of CSR activities with a special emphasis put on the pro-environmental perspective

So far it has been ascertained that environmental activities are not emphasized in the practice of CSR (Holcomb et al., 2007). CSR activities can be a critical tool in engaging frontline employees to achieve better performance and in attracting good quality employees, however, results show that hotel employees' perceptions of CSR activities encompass the host community, colleagues, and customers, beyond green practices (Park, Levy, 2014). Observed in the hotel industry, the limitation of the scope of CSR is contrary to the holistic character of this concept.

7.3. Hotel guests' experiences and assessments of the quality of received services

Pro-environmental attitudes and behaviours constitute a potentially important element in assessing the quality of hotel services. However, the question arises about the impact of pro-environmental practices identified by customers on their satisfaction based on previous experiences. How important is a positive assessment of pro-environmental activities in comparison to other factors influencing the level of satisfaction (e.g. the quality of interpersonal relations, infrastructure, provided services, etc.)?

7.4. Pro-ecological activities and purchasing decisions

The topic which certainly deserves attention is how guests assess pro-environmental activities undertaken by hotels. Are hotel guests, similarly to customers in other industries, for example the automotive industry, willing to pay more for green services? So far it has been demonstrated that guests are usually suspicious about pro-ecological activities undertaken by hotels. They suspect that the true objective is not some kind of common good in the form of a good state of the natural environment or compliance with the principle of intergenerational justice, but the pursuit of lower financial costs. This is how hotel guests react to appeals for lower consumption of towels, water or electricity. Maybe expenditures on human resources (e.g. the development of pro-ecological behaviours in employees) or tangible assets (e.g. pro-ecological infrastructure and equipment) will turn out to be more effective than or at least complementary to information and education used as tools for shaping pro-environmental attitudes and behaviours in hotel guests.

Some previous researches analysed guests' attitudes towards pro-environmental practices followed in Greek and American hotels. They also attempted to establish to what extent they are willing to pay for such practices (so-called readiness to pay). The results indicated that consumers in both countries were more likely to patronize and demonstrate a strong willingness to pay for hotels that provide environmentally responsible practices. It was also demonstrated that hotel guests in Greece were more concerned about the natural environment than their counterparts in the United States (Choi et al., 2009). This interesting observation confirms the occurrence of significant cultural and social differences determining consumers' ecological orientation.

7.5. The effectiveness of human resources management methods in the context of shaping pro-environmental behaviours

The effectiveness of human resources management methods is an important and relevant topic in the context of this research paper. Management specialists ponder over the methods of evaluating the effectiveness of training programmes (the methods used so far do not work because such effectiveness is influenced by a large number of factors), whether employees should be assessed, and how they can be motivated.

At this point, however, we would like to draw special attention to the issue of motivating employees to undertake pro-environmental activities. The question arises whether motivation aimed at shaping pro-environmental behaviours in employees is possible at all. It is a very complex problem because such behaviours are assessed on the basis of both their results and employees' motives for undertaking such

behaviours. Behaviours with positive influence on the environment need not be always related to environmental motives. What is more, individuals may not get involved in pro-environmental behaviours despite having strong pro-social or environmental fears (Jagers et al., 2017). Another important problem is an approach to motivating employees and an answer to the question whether pro-environmental behaviours should be rewarded. Researches conducted and experience gained to date indicate unambiguously that this method of motivation can be effective. On the other hand, however, achieved effects are usually short-lived and a motivational system can also lead to pathological behaviours. Thus, the problem of employee motivation remains open with respect to both the whole hotel industry and individual hotels.

Furthermore, a review of the literature on the subject indicates that subsequent researches should focus more on the cultural, ethnic, social, and economic diversification of hotel guests. Researches conducted so far on pro-environmental behaviours do not take such differences into sufficient consideration. They focus on gender only (Chen et al., 2016) and selected social factors (Lam et al., 2007; Ngai et al., 2007; Vasiljevic-Shikaleska, 2017), and exclusively in the context of ecological awareness and filing customer complaints. Furthermore, Singh (2018) observes that in some publications, the factors taken into consideration in statistical analysis are correlated or there are network connections among them. Such researches related directly to linear models developed in the 1970s.

Another interesting research direction could be to determine the influence of a hotel's location and its functional features (e.g. size, a degree of integration with other entities, a type and origin of capital) on guests' behaviours, including pro-environmental ones. For example, the research conducted by Line and Hanks (2016) demonstrated that ecological hotels were regarded as less luxurious by some guests, but this applied exclusively to business hotels and not to tourist ones.

7.6. The environmental and economic efficiency of behaviours

Issues related to ecological and economic efficiency, i.e. accounting for pro-environmental and economic programmes and behaviours, constitute an important research gap. The factual environmental results of hotels' activities aimed at limiting negative impact on the natural environment and savings of natural resources are still unknown. This is also connected with the issue of the economic efficiency of this type of activities. It is true that some researches indicate a potential influence of pro-environmental behaviours on the amount of ecological fees or taxes (Oreja-Rodríguez and Armas-Cruz 2012), but narrowing this calculus to the economic dimension has no justification at present, particularly in the context

of the principles of the new development paradigm that provide for the necessity of balancing economic, social, and environmental aspects in such calculations.

However, there is still a lack of convincing evidence that the implementation and use of environmental management systems creating, for example through procedures, employees' and managers' behaviours are related to hotels' economic results.

Another related issue is owners' and managers' decision-making dilemmas resulting from divergence between their organizations' short-term and long-term objectives. In the short term, the desire to maximize profits may be stronger than the will to undertake pro-environmental activities which, as a rule, have a positive, but long-term perspective. In the short term, they involve the necessity of incurring costs, which may have some negative impact on financial results. Potential benefits may be discounted later, which is difficult because of financial reporting requirements and a possible turnover of hotel employees, managers, and even owners. Thus, the question arises whether it is a good idea, for example, to reduce the number of light sources, to replace bathtubs with showers or offer company headed paper made of recycled materials, knowing that this will reduce guests' satisfaction with received services. An attempt to answer this question was made by Ho et al. (2018), who analysed the influence of an ethical approach to leadership, including formal supervision, on opportunistic behaviours in employees. The authors observed that the desire to gain immediate benefits may be the reason for behaviours characterized by rejection of moral principles. This, however, has to be confirmed in subsequent researches.

7. Conclusion

Issues related to pro-environmental behaviours are located at the junction of many subdisciplines such as environmental ethics, environmental economy, ecological economy, economy of sustainable development, and also – within the range of management and quality sciences – environmental management. At present they are of fundamental importance in the context of intensifying ecological problems the majority of which are of a global character (e.g. climate change) and, as a rule, have local sources. Because of mass tourism, the development of business tourism, and their huge impact on the natural environment, responsibility for these problems and their solutions has to be shared also by the hotel industry. Consequently, it can be assumed that environmental issues will be playing a greater and greater role in operational and strategic management processes in the hotel industry. What should be expected is their stronger connections with costs, and thus with financial results of individual hotels and the whole sector. It is important because an extended economic calculus (environmental and economic calculus) will be

becoming a major motive for pro-environmental behaviours of various groups of hotel stakeholders. This concerns not only hotel owners, managers, employees, and guests but also hotel suppliers and local communities. Each of these groups can derive real financial benefits from the implementation of environmental policies in hotels.

In this paper, the authors have reviewed researches on pro-environmental behaviours in the hotel industry. They have identified the most important objective and subjective barriers to the shaping of such behaviours. It has turned out that the topic is not discussed too extensively in the literature. A considerable part of earlier publications can constitute a starting point for further in-depth studies of the literature and empirical researches.

In the authors' opinion, the most promising issues in the context of future research projects include the maturity of environmental management systems, the authenticity of pro-environmental activities conducted within the scope of CSR, pro-environmental experiences of hotel guests and their influence on quality assessment and thus on future purchasing decisions, the effectiveness of human resources management, particularly training programmes, in the shaping and development of pro-environmental behaviours, as well as their environmental and economic efficiency. The conducted review of the literature on the subject, with particular attention paid to the models and theories of shaping ecological awareness, may also be used by managers to develop their own programmes aimed at shaping and developing pro-environmental behaviours in hotel stakeholders.

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